

DEPARTMENT OF ENVIRONMENTAL QUALITY
DIVISION OF ENERGY, MINERAL, AND LAND RESOURCES

FACT SHEET

GENERAL PERMIT NCG070000
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
PERMIT TO DISCHARGE STORMWATER

Permit No. NCG070000

Date: April 13, 2018

1. TYPES OF DISCHARGES COVERED

a. Industrial Activities Covered by this General Permit

Coverage under this general permit is applicable to all owners or operators of stormwater point source discharges associated with activities classified as establishments primarily engaged in activities classified as **Stone, Clay, Glass, and Concrete Products** [Standard Industrial Classification (SIC) 32]. Coverage is also applicable to point source discharges **from like industrial activities** deemed by the Division of Energy, Mineral, and Land Resources (DEMLR) to be similar to these operations in the process, or the discharges, or the exposure of raw materials, intermediate products, by-products, products, or waste products.

Except when DEMLR deems activities or discharges to be similar as described above, the following activities are **excluded from coverage** under this General Permit: establishments primarily engaged in **Ready-mixed Concrete** [SIC 3273] or **Hydraulic Cement** [SIC 3241].

b. Types of Operations Covered

SIC Group 32 includes establishments involved in the processing or manufacture of stone, clay, and glass products. Industry groups include the following:

Flat Glass (SIC 321), Glass and Glassware, Pressed or Blown (SIC 322)

The float glass process is used to manufacture most of the flat glass (SIC 321) produced in the United States. In the float glass process, sand, lime, and other materials are melted in large side port furnaces, then poured onto a pool of molten tin. A continuous ribbon of molten glass is drawn from this spreading mass to produce flat glass. After manufacture, there are a large variety of operations that are used to produce a final product. These operations include cutting, grinding, drilling, etching, metalizing, coating, and others. These finishing operations are typically conducted indoors. For facilities that are part of the Glass and Glassware, Pressed or Blown group (SIC 322), final products are manufactured from glass produced in the same establishment and have the same requirement for a permit as flat glass manufacturers.

The manufacture of glass uses large amounts of raw materials which must be handled in bulk by bucket elevators, belt conveyors, or other material handling systems. These transfer operations often produce large amounts of dust. For this reason, loading, unloading, and storage of raw materials, intermediates, products, and residuals tend to contaminate stormwater. The use of furnaces to melt raw materials and form glass may also produce significant amounts of airborne particulate matter that may contaminate stormwater.

Glass Products, made of Purchased Glass (SIC 323)

This group consists of manufacturing operations including cutting, grinding, drilling, etching, metalizing, coating, and many others. These operations are typically conducted indoors. Facilities in this group will generally not store raw materials, intermediate products, by-products, waste materials, or chemicals outside. Only those facilities which conduct operations where material-handling equipment, activities, materials, or machinery are exposed to stormwater runoff require a permit.

Structural Clay Products (SIC 325), Pottery and Related Products (SIC 326)

Ceramic products are produced by both the Structural Clay Products (SIC 325) and the Pottery and Related Products (SIC 326) groups. The three main materials used to make ceramic products are clay, feldspar, (three types: potash, soda, and lime), and sand. There are a large number of other materials that are added to produce products with varying properties. The basic manufacturing operations are: combining raw materials, shaping, and heating. Products, such as tableware, may involve additional operations such as glazing. The activities that can contribute to stormwater pollution include loading and unloading operations, and outdoor storage of raw materials, intermediate, and final products. For structural clay products (SIC 325), drying—often done before heating to remove water—may occur outdoors.

Concrete, Gypsum, and Plastic Products (SIC 327), Cut Stone and Stone Products (SIC 328)

Operations in these categories often have storage and other activities occurring outdoors exposed to stormwater. These facilities typically have process and manufacturing equipment exposed to the environment.

c. Characteristics of Discharged Stormwater

The draft renewal permit maintains the requirement for qualitative monitoring of all stormwater discharges associated with industrial activity. Typically, no additional analytical monitoring is proposed for this industrial sector. This draft does provide language to allow the division to require analytical monitoring and associated benchmarks for pH and TSS, if site conditions and/or activities warrant the need for additional monitoring.

The draft renewal permit also maintains the same parameters be regularly monitored in stormwater discharges from *on-site vehicle and equipment maintenance activities* (VMA). These parameters continue to be useful as the standard stormwater pollution indicators for VMA from this industrial sector.

d. Geographic Area(s) Covered by this General Permit

Discharges covered by this general permit are located at any place within the political boundary of the State of North Carolina. Discharges located on the Cherokee Indian Tribal Reservation are subject to permitting by the U.S. Environmental Protection Agency and are not covered by this general permit.

e. Receiving Waters

Receiving waters include all surface waters of North Carolina or municipal separate storm sewer systems conveying stormwater to surface waters.

2. PROPOSED DISCHARGE CONTROLS AND LIMITATIONS

Stormwater Discharges

The renewal permit maintains benchmark concentrations for stormwater discharges from VMA to provide facilities with a tool with which to assess the effectiveness of best management practices (BMPs). These benchmark concentrations are not effluent limits, but provide guidelines for the facility's Stormwater Pollution Prevention Plan (SPPP). Exceedances of benchmark values require the permittee to increase monitoring, increase management actions, increase record keeping, and/or install stormwater BMPs in a tiered program. Four (4) benchmark exceedances trigger notification to the Regional Office and may prompt additional requirements (Tier Three). This general permit first incorporated stormwater benchmarks and tiered responses in the 2008 renewal.

As discussed in 1.c. above, The "Non-polar O&G" benchmark of 15 mg/l replaces the previous O&G benchmark of 30 mg/l (see **Appendix A**).

Some parts of the **Stormwater Pollution Prevention Plan** (SPPP) have been expanded or modified. Please refer to the proposed draft General Permit NCG070000 for those requirements.

3. MONITORING AND REPORTING REQUIREMENTS

This permit specifies monitoring and reporting requirements for both quantitative and qualitative assessment of the stormwater discharges and operational inspections of the entire facility. This draft adds language to **allow the division the ability to require analytical monitoring, associated benchmarks, and Tiers for pH and TSS**, if site conditions and/or activities warrant the need for additional monitoring. This is proposed

to be based on the results of a site inspection by the division. In comparison, the current EPA MSGP requires analytical monitoring of TSS and Total Iron for all permitted Concrete and Gypsum Product Manufacturers (SIC 3271-3275). Specific pollutant parameters and the frequency of the sampling are based on the types of materials used, stored, and transferred at vehicle and equipment maintenance areas (VMA) of these sites, and on the potential for contamination of the stormwater runoff from these facilities. Qualitative parameters are consistent with other general permits in the NPDES stormwater program.

The draft renewal permit proposes specific monitoring requirements for the following parameters for stormwater discharges from vehicle/equipment maintenance areas: **Total Rainfall, Non-polar Oil and Grease (“Non-polar O&G”)** [by EPA Method 1664 (SGT-HEM)], **Total Suspended Solids (TSS)**, and amount of new motor and/or hydraulic oil used. This is based on the amount of average oil usage (more than 55 gallons of new motor oil and/or hydraulic oil per month when averaged over the calendar year). The rationale for retaining these parameters in the renewal permit is their utility as stormwater pollution indicators for vehicle maintenance areas.

The draft renewal permit retains the term “**measurable storm event.**” The measurable storm event is an event that results in an actual discharge, rather than an event with a rainfall measuring 0.1 inches or more. To qualify as a measurable storm event, the previous storm event must have been at least 72 hours prior. In 2011, the NCG140000 Ready-Mixed Concrete General Permit was the first general permit to implement this new storm event definition, and other general permits have since followed suit. The proposed draft also maintains the requirement to separate semi-annual sampling events by a minimum of 60 days.

As before, the renewal permit specifies qualitative (visual) monitoring of each stormwater outfall for the purpose of evaluating the effectiveness of the Stormwater Pollution Prevention Plan (SPPP) and assessing new sources of stormwater pollution. In cases where vehicle/equipment maintenance activities do not trigger analytical monitoring, facilities will only be required to perform semi-annual qualitative monitoring under the proposed renewal permit. Qualitative monitoring parameters include color, odor, clarity, floating and suspended solids, foam, oil sheen, and other obvious indicators of stormwater pollution. Qualitative monitoring should be performed during any analytic sampling event, if applicable (vehicle or equipment maintenance only).

The draft permit maintains specific direction to the permittee about how to respond to qualitative monitoring. If qualitative monitoring indicates that existing stormwater BMPs are ineffective, or that significant stormwater contamination is present, the permittee must investigate potential causes, evaluate the feasibility of corrective actions, and implement those corrective actions within 60 days. A written record of the permittee’s investigation, evaluation, and response actions must be kept in the SPPP. The **Qualitative Monitoring Response** establishes actions for when a permittee repeatedly fails to respond effectively to correct problems, or if the discharge causes or contributes to a water quality standard violation.

4. COMPLIANCE SCHEDULE

The compliance schedule in Part III, Section A still advises that the permittee comply with Limitations and Controls specified for stormwater discharges in accordance with the following schedule:

Existing Facilities already operating but applying for permit coverage for the first time: The Stormwater Pollution Prevention Plan shall be developed and implemented within 12 months of the effective date of the **Certificate of Coverage** and updated thereafter on an annual basis. Secondary containment, as specified in Part II, Section A, Paragraph 2(b) of this general permit, shall be accomplished within 12 months of the effective date of the issuance of the **Certificate of Coverage**.

New Facilities applying for coverage for the first time: The Stormwater Pollution Prevention Plan shall be developed and implemented prior to the beginning of discharges from the operation of the industrial activity and be updated thereafter on an annual basis. Secondary containment, as specified in Part II, Section A, Paragraph 2(b) of this general permit shall be accomplished prior to the beginning of discharges from the operation of the industrial activity.

Existing facilities previously permitted and applying for renewal under this General Permit: All requirements, conditions, limitations, and controls contained in this permit (except new SPPP elements in this permit renewal) shall become effective immediately upon issuance of the **Certificate of Coverage**. New elements of the Stormwater Pollution Prevention Plan for this permit renewal shall be developed and implemented within 6 months of the effective date of this general permit and updated thereafter on an annual basis. Secondary containment, as specified in Part III, Paragraph 2(b) of this general permit shall be accomplished prior to the beginning of discharges from the operation of the industrial activity.

5. SPECIAL CONDITIONS WHICH WILL HAVE A SIGNIFICANT IMPACT ON THE DISCHARGE

This draft general permit does not propose any special conditions that will have a significant impact on the discharge. However, the proposed draft does add Special Conditions in Part II, Section D. that address electronic reporting requirements mandated by the federal NPDES Electronic Reporting Rule. When the agency's electronic reporting system is able to accept NPDES stormwater permit monitoring data, the permittee must report discharge monitoring data electronically using NC Division of Water Resources' Electronic Discharge Monitoring Report (eDMR) internet application. NC DEMLR will notify permittees when eDMR is ready to accept data.

6. BASIS FOR CONTROLS AND LIMITATIONS

Stormwater Discharges

The conditions of this general permit have been designed using best professional judgment to achieve water quality protection through compliance with the technology-based standards of the Clean Water Act (Best Available Technology [BAT] and Best Conventional Pollutant Control Technology [BCT]). Where the Director determines that a water quality

violation is occurring and water quality-based controls or effluent limitations are required to protect the receiving waters, coverage under the general permit shall be terminated and an individual permit will be required. Based on a consideration of the appropriate factors for BAT and BCT requirements, and a consideration of the factors discussed below in this fact sheet for controlling pollutants in stormwater discharges associated with the activities as described in Item 1 (Types of Discharge Covered), this permit retains a set of requirements for developing and implementing stormwater pollution prevention plans, and specific requirements for monitoring and reporting on stormwater discharges.

The permit conditions reflect the Environmental Protection Agency's (EPA) and North Carolina's pollution prevention approach to stormwater permitting. The quality of the stormwater discharge associated with an industrial activity will depend on the availability of pollutant sources. This renewal permit still reflects the Division's position that implementation of Best Management Practices (BMPs) and traditional stormwater management practices which control the source of pollutants meets the definition of BAT and BCT. The permit conditions are not numeric effluent limitations, but rather are designed to be flexible requirements for developing and implementing site specific plans to minimize and control pollutants in the stormwater discharges associated with the industrial activity.

Title 40 Code of Federal Regulations (CFR) Part 122.44(k)(2) authorizes the use of BMPs in lieu of numeric effluent limitations in NPDES permits when the agency finds numeric effluent limitations to be infeasible. The agency may also impose BMP requirements which are "reasonably necessary" to carry out the purposes of the Act under the authority of 40 CFR 122.44(k)(3). The conditions of the renewal permit are retained under the authority of both of these regulatory provisions. The pollution prevention requirements (BMP requirements) in this permit operate as limitations on effluent discharges that reflect the application of BAT/BCT. The basis is that the BMPs identified require the use of source control technologies which, in the context of these general permits, are the best available of the technologies economically achievable (or the equivalent BCT finding).

All facilities covered by this General Permit must prepare, retain, implement, and (at a minimum of annually) update a Stormwater Pollution Prevention Plan (SPPP). The term "pollution prevention" distinguishes this source reduction approach from traditional pollution control measures that typically rely on end-of-pipe treatment to remove pollutants in the discharges. The plan requirements are based primarily on traditional stormwater management, pollution prevention and BMP concepts, providing a flexible basis for developing site-specific measures to minimize and control the amounts of pollutants that would otherwise contaminate the stormwater runoff.

The pollution prevention approach adopted in the SPPP in this renewal permit still focuses on two major objectives: 1) to identify sources of pollution potentially affecting the quality of stormwater discharges associated with industrial activity from the facility; and 2) to describe and ensure that practices are implemented to minimize and control pollutants in stormwater discharges associated with industrial activity from the facility and to ensure compliance with the terms and conditions of the permit.

The Division believes that it is not appropriate, at this time, to require a single set of effluent limitations or a single design or operational standard for all facilities which discharge stormwater associated with industrial activity. This permit instead establishes a framework for the development and implementation of site-specific stormwater pollution prevention plans. This framework provides the necessary flexibility to address the variable risk for pollutants in stormwater discharges associated with the industrial activities that are addressed by this permit, while ensuring procedures to prevent stormwater pollution at a given facility are appropriate given the processes employed, engineering aspects, functions, costs of controls, location, and age of facility (as discussed in 40 CFR 125.3). This approach allows flexibility to establish controls which can appropriately address different sources of pollutants at different facilities.

The EPA and NPDES States have, on a case-by-case basis, imposed BMP requirements in NPDES permits. The EPA has also continued to review and evaluate case studies involving the use of BMPs and the use of pollution prevention measures associated with spill prevention and containment measures for oil. The development of the NPDES permit application requirements for stormwater discharges associated with industrial activity resulted from the evaluation and identification of the potential contaminants and the resultant water quality impacts of stormwater discharges from industrial sites. Public comments received during the rule making provided additional insight regarding stormwater risk assessment, as well as appropriate pollution prevention and control measures and strategies. During that time EPA again reviewed stormwater control practices and measures. These experiences have shown the Division that pollution prevention measures such as BMPs can be appropriately used and that permits containing BMP requirements can effectively reduce pollutant discharges in a cost-effective manner. BMP requirements are imposed in general permits in lieu of numeric effluent limitations pursuant to 40 CFR 122.44(k)(2).

There has been no significant change to this rationale since the previous General Permit NCG070000.

Stormwater Benchmarks

The proposed **pH benchmark** range of 6.0 - 9.0 is based on N.C. Water Quality Standards in 15A NCAC 02B .0211 and is consistent with other renewed general stormwater permits.

The “**Non-polar O&G**” [**by EPA Method 1664 (SGT-HEM)**] **benchmark** of 15.0 mg/l is consistent with other States’ benchmarks and/or limits for total petroleum hydrocarbons (TPH) and reflects a value normally only associated with significant oil contamination. Specifying the EPA Method 1664 with the silica gel treatment step (SGT-HEM) in the permit ensures a cost effective way to estimate TPH (as opposed to gas chromatographic analysis).

The standard **total suspended solids (TSS) benchmark** of 100 mg/l is based on the median concentration derived from the National Urban Runoff Program (NURP) study in 1983 and serves as a benchmark in most other industrial stormwater permits with TSS

monitoring. The lower TSS benchmark for ORW, HQW, trout, and primary nursery area (PNA) waters of 50 mg/l reflects half that standard value and was set to flag potential problems in discharges to waters with much lower water quality standards for TSS concentrations (20 mg/l for HQW and ORW; 10 mg/l for trout and PNA waters).

7. REQUESTED VARIANCES OR ALTERNATIVES TO REQUIRED STANDARDS

There are no requested variances or alternatives to required standards. Facilities requesting variances to required standards will not be covered under this General Permit but will instead be required to seek coverage under an individual permit.

8. THE ADMINISTRATIVE RECORD

The administrative record, including application, draft permits, fact sheet, public notice, comments received, and additional information is available by writing to:

Stormwater Program
Division of Energy, Mineral, and Land Resources (DEMLR)
1612 Mail Service Center
Raleigh, North Carolina 27699-1612

The above documents are available for review and copying at:

Archdale Building, 9th Floor
DEMLR Stormwater Program
512 N. Salisbury Street
Raleigh, North Carolina

between the hours of 8:00 AM and 5:00 PM Monday through Friday. Copies will be provided at a charge of 10 cents per page.

9. STATE CONTACT

Additional information about the draft permit may be obtained at the above address between the hours of 8:00 AM and 5:00 PM Monday through Friday by contacting: **Robert Patterson** at (919) 807-6369.

10. SCHEDULE OF PERMIT ISSUANCE

Draft Permit Public Notice – **Statewide Notice to publish April 16, 2018;**
Draft available on-line by April 16, 2018;
Comment Period Ends May 16, 2018

Permit Scheduled to Issue – **No later than May 31, 2018;**

Effective **June 1, 2018**

11. PROCEDURE FOR THE FORMULATION OF FINAL DETERMINATIONS

a. Comment Period

The Division of Energy, Mineral, and Land Resources proposes to issue an NPDES General Permit for the above described stormwater discharges subject to the outlined effluent limitations, management practices, and special conditions. These determinations are open to comment from the public.

Interested persons are invited to submit written comments on the permit applications or on the Division of Energy, Mineral, and Land Resources' proposed determinations to the following address:

Stormwater Program
Division of Energy, Mineral, and Land Resources
1612 Mail Service Center
Raleigh, North Carolina 27699-1612
Attn: **Robert Patterson**

All comments received within thirty (30) days following the date of public notice are considered in the formulation of final determinations.

b. Public Meeting

The Director of the Division of Energy, Mineral, and Land Resources may hold a public meeting if there is a significant degree of public interest in a proposed permit or group of permits. Public notice of such a meeting will be circulated in newspapers in the geographical area of the discharge and to those on the Division of Energy, Mineral, and Land Resources' mailing list at least thirty (30) days prior to the meeting.

c. Appeal Hearing

An applicant whose permit is denied, or is granted subject to conditions he deems unacceptable, shall have the right to a hearing before the Commission upon making written demand to the Office of Administrative Hearing (OAH) within 30 days following issuance or denial of the permit.

d. Issuance of a Permit When no Hearing is Held

If no public meeting or appeal hearing is held, after review of the comments received, and if the Division of Energy, Mineral, and Land Resources determinations are substantially unchanged, the permit will be issued and become effective on the first day of the month following the issuance date. This will be the final action of the Division of Energy, Mineral, and Land Resources.

If a public meeting or appeal hearing is not held, but there have been substantial changes, public notice of the Division of Energy, Mineral, and Land Resources revised determinations will be made. Following a 30-day comment period, the permit will be issued and will become effective on the first day of the month following the issuance date. This will be the final action of the Division of Energy, Mineral, and Land Resources unless a public meeting or appeal hearing is granted.